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Space Interferometry Mission

SIM Configuration Overview

SIMSWG - 4

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Precision Structure Architect

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Space Interferometry Mission

Outline

- Artist's Concept - Deployed Configuration
- Stowed Configuration and Deployment Sequence
- Video (unless it's already been shown)
- Collector Layout
- Features

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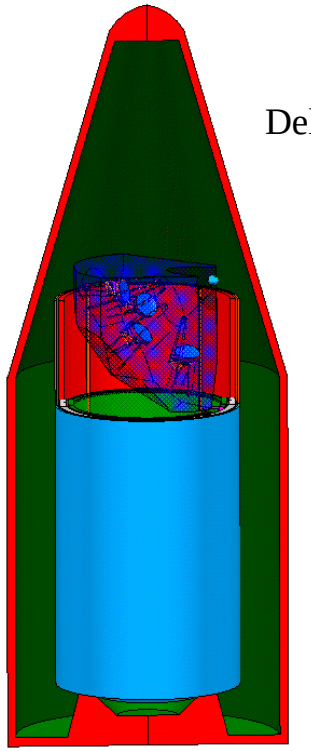
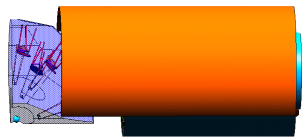
Space Interferometry Mission

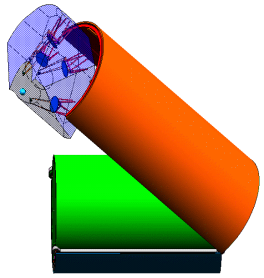
Artist's Concept (Craig Attebery)

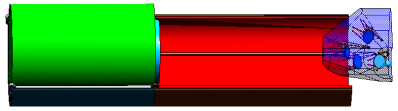
Stowed Configuration and Deployment Sequence

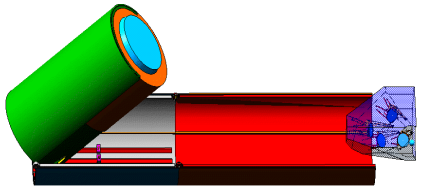


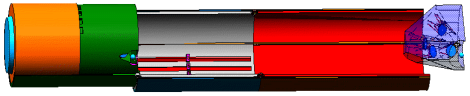
Delta III Shroud



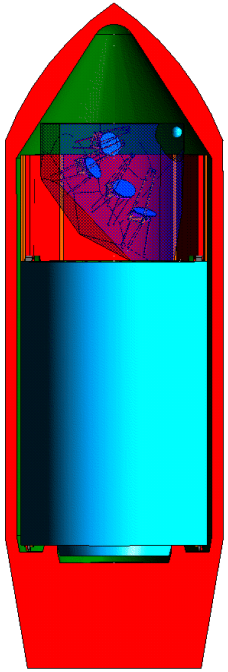


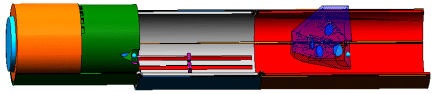


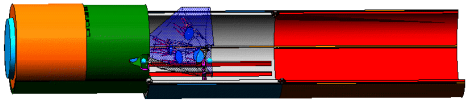




Delta II Shroud







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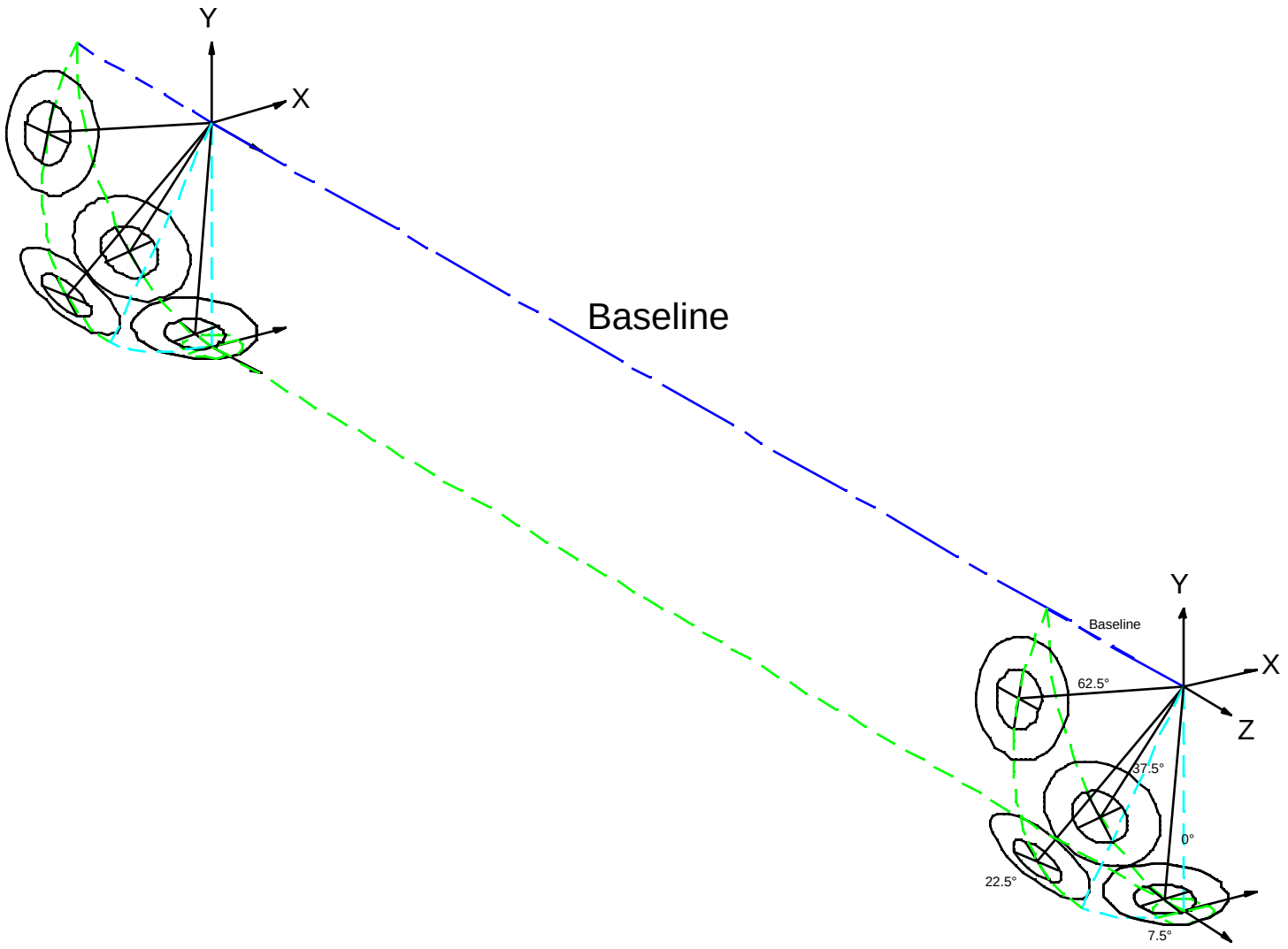
Collector Layout in Both Pods



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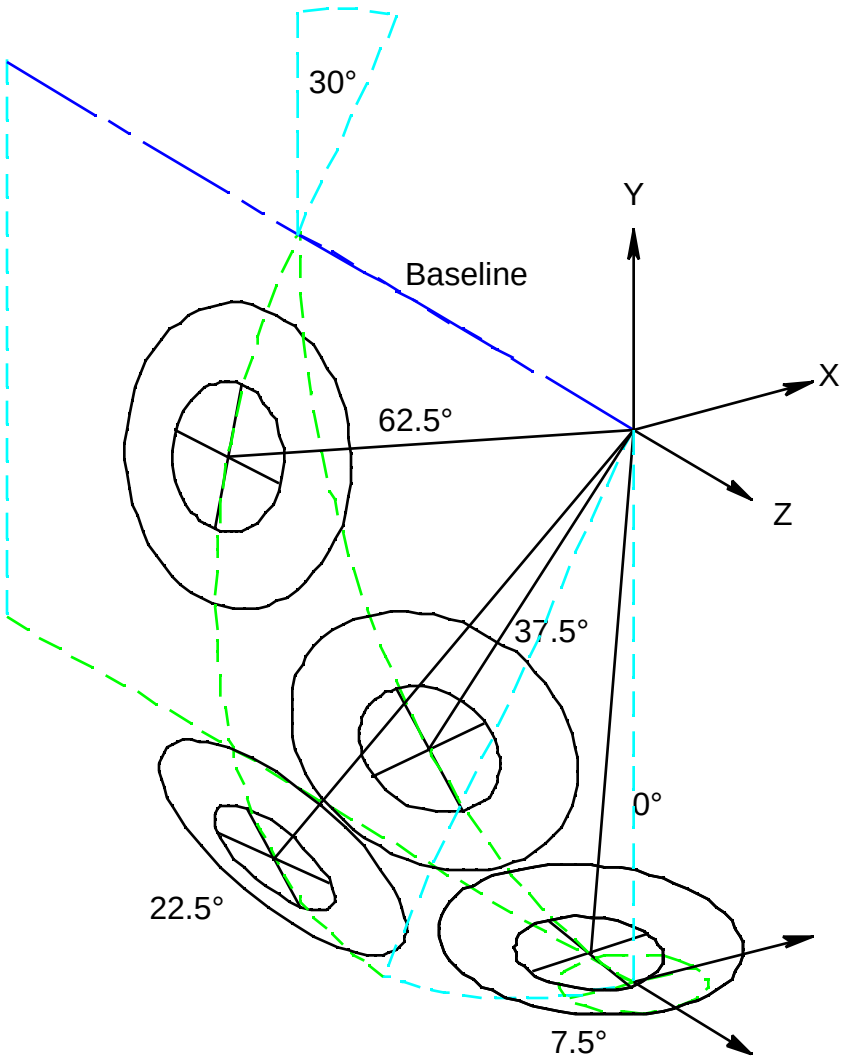
Layout of Collectors within a Pod



Space Interferometry Mission

Features

- 0.5 m to 10.7 m astrometric baseline
  - Move pods (Track and Trolley)
  - Tilt collectors to foreshorten
- Non-overlapping Fields or Regard
- Fixed Curved Solar Array
  - Partially populated with Optical Solar Reflectors (OSRs)
  - Abundant power in most orientations
    - Use secondary batteries to augment non-favorable attitudes
  - Thermally isolated from Precision Structure
- Thermal Control
  - Low CTE materials
  - Significant Insulation
  - Thermostatically controlled heaters
- Structure
  - Graphite / Polycyanate Half-shell
  - Precision Latching for Primary Deployments